

WEST Search History

DATE: Wednesday, April 30, 2003

Set Name Query

side by side

Hit Count Set Name

result set

*DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; THES=ASSIGNEE;
PLUR=YES; OP=ADJ*

L6	5897620.uref.	20	L6
L5	L2 and (cach\$3)	37	L5
L4	L2 same (cach\$3)	0	L4
L3	L2 same (stale or out-of-date or outdated) same (search\$3 or retriev\$3 or quer\$3)	3	L3
L2	(airline or flight) same seat same (vacan\$5 or availab\$5)	433	L2
L1	cach\$3 same seat same (vacan\$5 or availab\$5)	1	L1

END OF SEARCH HISTORY

5758149

WEST**End of Result Set**☐

Generate Collection

Print

L3: Entry 3 of 3

File: USPT

Jul 9, 2002

US-PAT-NO: 6418413

DOCUMENT-IDENTIFIER: US 6418413 B2

TITLE: Method and apparatus for providing availability of airline seats

DATE-ISSUED: July 9, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
DeMarcken; Carl G.	Arlington	MA		
Galperin; Gregory R.	Boston	MA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
ITA Software, Inc.	Cambridge	MA			02

APPL-NO: 09/ 244905 [PALM]

DATE FILED: February 4, 1999

INT-CL: [07] G06 F 17/60

US-CL-ISSUED: 705/5; 705/6, 705/7, 705/10

US-CL-CURRENT: 705/5; 705/10, 705/6, 705/7

FIELD-OF-SEARCH: 705/5, 705/6, 705/7, 705/10

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search ALL

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/>	<u>5161225</u>	November 1992	Abraham et al.	395/600
<input type="checkbox"/>	<u>5832454</u>	November 1998	Jafri et al.	705/6
<input type="checkbox"/>	<u>5839114</u>	November 1998	Lynch et al.	705/5
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<input type="checkbox"/>	<u>5999946</u>	December 1999	Bailis et al.	707/201
<input type="checkbox"/>	<u>6085169</u>	July 2000	Walker et al.	705/26

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO
WO-00/43927

PUBN-DATE
July 2000

COUNTRY
WO

US-CL

OTHER PUBLICATIONS

Travelocity.com Launches Fare Search Technology on New Platform. Travelocity.com News Release [online], Jan. 2001 [retrieved on Jan. 22, 2001]. Retrieved from the Internet: Foley, Sabre's Challenge, Aug. 1997, Information Week, pp. 83-86.*
Feldman, "Chasing the Rational Marketplace", Air Transport World Dec. 1998 vol. 35 Issue 12 P 32, 2P.

ART-UNIT: 2166

PRIMARY-EXAMINER: Rimell; Sam

ASSISTANT-EXAMINER: Gilligan; Christopher L.

ATTY-AGENT-FIRM: Fish & Richardson P.C.

ABSTRACT:

A computer program product, method and system for producing seat availability information for a mode of travel such as airline travel produce a prediction of availability of a seat in accordance with an availability query. The prediction is used in place of making an actual query to an airline or other travel mode availability system.

27 Claims, 13 Drawing figures

WEST

Generate Collection

Print

L5: Entry 22 of 37

File: USPT

Apr 23, 2002

US-PAT-NO: 6377932

DOCUMENT-IDENTIFIER: US 6377932 B1

TITLE: Rules validation for travel planning system

DATE-ISSUED: April 23, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
DeMarcken; Carl G.	Arlington	MA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
ITA Software, Inc.	Cambridge	MA			02

APPL-NO: 09/ 109486 [PALM]

DATE FILED: July 2, 1998

INT-CL: [07] G06 F 17/60

US-CL-ISSUED: 705/5; 705/6, 705/1

US-CL-CURRENT: 705/5; 705/1, 705/6

FIELD-OF-SEARCH: 705/5, 705/6, 705/1

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search ALL

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<input type="checkbox"/>	<u>4862357</u>	August 1989	Ahlstrom et al.	364/407
<input type="checkbox"/>	<u>5021953</u>	June 1991	Webber et al.	364/407
<input type="checkbox"/>	<u>5177684</u>	January 1993	Harker et al.	364/436
<input type="checkbox"/>	<u>5191523</u>	March 1993	Whitesage	705/6
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<input type="checkbox"/>	<u>5732398</u>	March 1998	Tagawa	705/5
<input type="checkbox"/>	<u>5794172</u>	August 1998	Matheson et al.	701/117
<input type="checkbox"/>	<u>5797127</u>	August 1998	Walker et al.	705/5
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<input type="checkbox"/>	<u>5838973</u>	November 1998	Carpenter-Smith et al.	395/701
<input type="checkbox"/>	<u>5897620</u>	April 1999	Walker et al.	705/5
<input type="checkbox"/>	<u>5948040</u>	September 1999	DeLorme et al.	701/201

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0 451 371	October 1991	EP	
0 762 306	March 1997	EP	
WO 89/07798	August 1989	WO	
WO 97/08639	June 1997	WO	
WO 99/01822	January 1999	WO	
WO 00/002152	January 2000	WO	

OTHER PUBLICATIONS

Strom, David, "Embryonic use of SQL Server yields fare payoff", PC Week, pp. 2-3, Apr. 1989.*

Wong, J.-T., "Flexible assignment approach to itinerary seat allocation", Transportation Research, p. 1 (abstract), Feb. 1993.*

"Towards desktop personal travel agents", D.T. Ndumu, J.C. Collis and H.S. Nwana, BT Technol. J., vol. 16, No. 3, Jul. 1998, pp. 69-78.

ART-UNIT: 2765

PRIMARY-EXAMINER: Hafiz; Tariq R.

ASSISTANT-EXAMINER: Robinson-Boyce; Akiba

ATTY-AGENT-FIRM: Fish & Richardson P.C.

ABSTRACT:

An airline travel planning system is described. The system includes a server

computer executing a server process including a search process to search for set of pricing solutions in accordance with at least one destination and at least one origin. The search process represents the set of pricing solutions in the form of a directed acyclic graph. The system also includes a client computer executing a client process on the set of pricing solutions. The client process has a manipulation process that manipulates the set of pricing solutions in response to user preferences. Several processes are described including a process responsive to user preferences and to set of pricing solutions that provides pricing solutions sorted by said user preference, a process that sorts set of pricing solutions to produce a subset of said set of pricing solutions in accordance with user specified preferences, and a process that prunes from the directed acyclic graph nodes that are no longer contained within the subset of set of pricing solutions.

29 Claims, 33 Drawing figures

WEST



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L5: Entry 23 of 37

File: USPT

Mar 19, 2002

US-PAT-NO: 6360205

DOCUMENT-IDENTIFIER: US 6360205 B1

TITLE: Obtaining and utilizing commercial information

DATE-ISSUED: March 19, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Iyengar; Maya L.	Aurora	CO		
Reid; Aaron J.	Lakewood	CO		
Toffa; Antoine K.	Parker	CO		
Heithoff; Russel W.	Aurora	CO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Trip.com, Inc.	Englewood	CO			02

APPL-NO: 09/ 263310 [PALM]

DATE FILED: March 5, 1999

PARENT-CASE:

This application is related to and claims priority from Provisional Patent Application No. 60/106,423, filed Oct. 30, 1998. This application contains a microfiche appendix consisting of 3 microfiche sheets and 150 frames.

INT-CL: [07] G06 F 17/00

US-CL-ISSUED: 705/5; 705/80

US-CL-CURRENT: 705/5; 705/80

FIELD-OF-SEARCH: 705/5, 705/80, 705/79, 705/6

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

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<input type="checkbox"/>	<u>4775936</u>	October 1988	Jung	705/5
<input type="checkbox"/>	<u>4931932</u>	June 1990	Dalnekoff et al.	705/5
<input type="checkbox"/>	<u>5237499</u>	August 1993	Garback	705/5
<input type="checkbox"/>	<u>5239480</u>	August 1993	Huegel	705/5
<input type="checkbox"/>	<u>5253165</u>	October 1993	Leiseca et al.	705/5
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<input type="checkbox"/>	<u>5289371</u>	February 1994	Abel et al.	705/5
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<input type="checkbox"/>	<u>5483444</u>	January 1996	Heintzeman et al.	705/5
<input type="checkbox"/>	<u>5570283</u>	October 1996	Shoolery et al.	705/5
<input type="checkbox"/>	<u>5652867</u>	July 1997	Barlow et al.	395/500
<input type="checkbox"/>	<u>5732398</u>	March 1998	Tagawa	705/5
<input type="checkbox"/>	<u>5781892</u>	July 1998	Hunt et al.	705/5
<input type="checkbox"/>	<u>5797127</u>	August 1998	Walker et al.	705/5
<input type="checkbox"/>	<u>5832451</u>	November 1998	Flake et al.	705/5
<input type="checkbox"/>	<u>5832454</u>	November 1998	Jafri et al.	705/6
<input type="checkbox"/>	<u>5839114</u>	November 1998	Lynch	705/5
<input type="checkbox"/>	<u>5933810</u>	August 1999	Okawa	705/5
<input type="checkbox"/>	<u>5940803</u>	August 1999	Kanemitsu	705/6
<input type="checkbox"/>	<u>5948040</u>	September 1999	Delorme et al.	701/201
<input type="checkbox"/>	<u>5953705</u>	September 1999	Oneda	705/5
<input type="checkbox"/>	<u>5978770</u>	November 1999	Waytena et al.	705/5
<input type="checkbox"/>	<u>5983220</u>	November 1999	Schmitt	707/5

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
409114885	May 1997	JP	

OTHER PUBLICATIONS

"http://www.usairways.com", "Itinerary, Price and Alternative", p. 1, 1998.*
 "US Airways Launches Internet Reservations System", PR Newswire, 1616, Oct. 1998.*
 "Software Provides Access to Airlines", USA Today, p. 1B, Oct. 1995.*
 US Airways Offers online awards:, Air Transport World, v34, n 12 p 54, Dec. 1997.*
 "http://www.usairway.com", "Select Your Departure Flight", p. 1, 1998.*
 "http://www.usairways.com", "Review the ticket price information", p. 1, 1998.*
 "http://www.usairways.com", "Reserve a Flight", p. 1, 1998.*
 "http://www.usairways.com", "No Quotable Fare", p. 1, 1998.*
 "http://www.usairways.com", "Login to Personal Travel Works", p. 1, 1998.*
 Website of Travelterminal.com, 1999.*
 Maddox, K., "Traveling on the web", Informationweek, Jan. 1997.*
 Website of travelocity.com, 1999.*
 Woods, L., "Booking your trip online", Kiplinger's Personal Finance Magazine, May 1997.*
 McWill-iams, G., "Clipping Wings on the Web", Business Week, 1997.*
 M2 PressWire, Internet Travel Network: Internet Travel Network Completes Strategic Investment from United Airlines, May 1998.*
 Pack, T., "Travel Sites", Link-Up, Sep. 1997.*
 Flint, P., "Sabre Unleashed", Air Transport World, Nov. 1996.*

Website of dealtime.com, 1998.*

PR NewsWire, "PR Newswire California Summary", Dec. 1998.*

Derwent -ACC-NO: 2000-365835; Heithoff, R. W. et al., May 2000.*

The Economist, "Roboshop", Jun. 14, 1997.

ART-UNIT: 2161

PRIMARY-EXAMINER: Trammell; James P.

ASSISTANT-EXAMINER: Elisca; Pierre E

ATTY-AGENT-FIRM: Sheridan Ross P.C.

ABSTRACT:

In accordance with the present invention, a method for providing reservation information related to airline flights, lodging, transportation and the like using a communications network is disclosed. In one embodiment, access to a server machine is divided into sessions. During a first session a user machine makes a first request for reservation information from the server machine. This first request includes input data from a first customer which relates to the desired reservation information. For example, the first customer may input travel times in the hopes of booking a flight which corresponds to those times. The server machine requests the reservation information from a number of target sites based upon the input data. Included in the number of target sites is a first and second target sites. The server machine obtains reservation information which includes first and second reservation information respectively from the first and second target sites.

37 Claims, 36 Drawing figures

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L5: Entry 36 of 37

File: USPT

Nov 9, 1993

US-PAT-NO: 5261069

DOCUMENT-IDENTIFIER: US 5261069 A

TITLE: Method of maintaining consistency of cached data in a database system

DATE-ISSUED: November 9, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wilkinson; W. Kevin	Sunnyvale	CA		
Neimat; Marie-Anne	Atherton	CA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Hewlett-Packard Company	Palo Alto	CA			02

APPL-NO: 07/ 566732 [PALM]

DATE FILED: August 13, 1990

INT-CL: [05] G06F 1/00

US-CL-ISSUED: 395/425; 395/600, 364/DIG.2, 364/974, 364/969, 364/969.2, 364/964, 364/964.2

US-CL-CURRENT: 711/145; 707/8

FIELD-OF-SEARCH: 364/2MSFile, 364/9MSFile, 395/425, 395/400, 395/600

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search ALL

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<input type="checkbox"/>	<u>4755930</u>	July 1988	Wilson, Jr. et al.	364/200
<input type="checkbox"/>	<u>4775955</u>	October 1988	Liu	364/900
<input type="checkbox"/>	<u>4897782</u>	January 1990	Bennett et al.	395/600
<input type="checkbox"/>	<u>4965719</u>	October 1990	Shoens et al.	395/650
<input type="checkbox"/>	<u>5029169</u>	July 1991	Smyk	371/19
<input type="checkbox"/>	<u>5055999</u>	October 1991	Frank et al.	364/200
<input type="checkbox"/>	<u>5077658</u>	December 1991	Bendert et al.	395/600
<input type="checkbox"/>	<u>5091846</u>	February 1992	Sachs et al.	395/250
<input type="checkbox"/>	<u>5113514</u>	May 1992	Albonesi et al.	395/425
<input type="checkbox"/>	<u>5140685</u>	August 1992	Sipple et al.	395/425
<input type="checkbox"/>	<u>5161227</u>	November 1992	Dias et al.	395/725

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"VAXclusters: A Closely-Coupled Distributed System", by Kronenberg, N. P., Levy, H. M., Strecker, W. D.; ACM Transactions on Computer Systems, vol. 4, No. 2, May 1986, pp. 130-146.

"Integrated Concurrency-Coherency Controls for Multisystem Data Sharing", by Dias, D. M., Balakrishna, R. I., Robinson, J. T. and Yu, P. S.; IEEE Transactions on Software Eng., vol. 15, No. 4, Apr. 1989, pp. 437-448.

ART-UNIT: 232

PRIMARY-EXAMINER: Rudolph; Rebecca L.

ABSTRACT:

A method of maintaining the consistency of cached data in a client-server database system. Three new locks--a cache lock, a pending lock and an out-of-date lock--are added to a two-lock concurrency control system. A new long-running envelope transaction holds a cache lock on each object cached by a given client. A working transaction of the client works only with the cached object until commit time. If a second client's working transaction acquires an "X" lock on the object the cache lock is changed to a pending lock; if the transaction thereafter commits the pending lock is changed to an out-of-date lock. If the first client's working transaction thereafter attempts to commit, it waits for a pending lock to change; it aborts if it encounters an out-of-date lock; and otherwise it commits.

17 Claims, 8 Drawing figures

WEST



Generate Collection

Print

L6: Entry 10 of 20

File: USPT

Apr 30, 2002

US-PAT-NO: 6381578

DOCUMENT-IDENTIFIER: US 6381578 B1

TITLE: Factored representation of a set of priceable units

DATE-ISSUED: April 30, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
DeMarcken; Carl G.	Arlington	MA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
ITA Software, Inc.	Cambridge	MA			02

APPL-NO: 09/ 109876 [PALM]

DATE FILED: July 2, 1998

INT-CL: [07] G06 F 17/60

US-CL-ISSUED: 705/6; 705/400

US-CL-CURRENT: 705/6; 705/400

FIELD-OF-SEARCH: 701/201, 701/202, 705/5, 705/6, 705/400, 707/10, 707/102, 707/104, 709/217, 709/218, 709/219

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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<input type="checkbox"/>	<u>5021953</u>	June 1991	Webber et al.	364/407
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<input type="checkbox"/>	<u>5918209</u>	June 1999	Campbell et al.	705/5
<input type="checkbox"/>	<u>5948040</u>	September 1999	DeLorme et al.	701/201
<input type="checkbox"/>	<u>6029162</u>	February 2000	Schultz	707/2

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
WO 89/07798	August 1989	EP	
0 451 371	October 1991	EP	
0 762 306	March 1997	EP	
WO 97/08639	June 1997	WO	

OTHER PUBLICATIONS

Brown: "An economic model of airline hubbing-and spoking"; Logistics and Transportation Review, Sep. 1991, vol. 27, No. 3, p. 225.*
"Towards desktop personal travel agents", D.T. Ndumu, J.C. Collis and H.S. Nwana, BT Technol. J., vol. 16, No. 3, Jul. 1998, pp. 69-78.

ART-UNIT: 2161

PRIMARY-EXAMINER: Cosimano; Edward R.

ATTY-AGENT-FIRM: Fish & Richardson P.C.

ABSTRACT:

An airline travel planning system is described. The system includes a server computer executing a server process including a search process to search for set of

pricing solutions in accordance with at least one destination and at least one origin. The search process represents the set of pricing solutions in the form of a directed acyclic graph. The system also includes a client computer executing a client process on the set of pricing solutions. The client process has a manipulation process that manipulates the set of pricing solutions in response to user preferences. Several processes are described including a process responsive to user preferences and to set of pricing solutions that provides pricing solutions sorted by said user preference, a process that sorts set of pricing solutions to produce a subset of said set of pricing solutions in accordance with user specified preferences, and a process that prunes from the directed acyclic graph nodes that are no longer contained within the subset of set of pricing solutions.

22 Claims, 33 Drawing figures